Claims

What is claimed is:

1. A system for monitoring and controlling a plurality of appliances, said system comprising:

- access means providing said appliances with internet connectivity; and
- at least one central server located on the internet, through which all data from said appliances and users of said system passes;
- wherein said system is capable of allowing any said user to simultaneously communicate with a plurality of said appliances in real-time; and
- capable of allowing a plurality of said users to simultaneously communicate with any particular said appliance in real-time; and
- capable of allowing any said appliance to communicate with a plurality of other said appliances simultaneously and in real-time.

2. A monitoring and control system of claim 1, further comprising communication means enabling said appliances to initiate communication with a plurality of other said appliances and said users without any human intervention.

3. A monitoring and control system of claim 1, wherein said central server is capable of receiving inputs from and transmitting outputs to said appliances under the control of a plurality of program control means.

4 A monitoring and control system of claim 1, wherein said central server contains software application means for a plurality of users of said system to write and modify said program control means.

5. A monitoring and control system of claim 1, wherein said central server contains software application means for a plurality of users of said system to write and modify said program control means and the writing and modification of said program control means is done through a graphical user interface (GUI).

6. A monitoring and control system of claim 1, wherein said appliances are capable of communicating within the internet without the need of a static IP address.

7. A monitoring and control system of claim 1, wherein said appliances automatically connect to the internet and said central server using a dial-up connection when one or

8. A monitoring and control system of claim 1, wherein said appliances automatically logon to said central server at regular pre-programmed intervals to report their status.

9. A monitoring and control system of claim 1, wherein said appliance contains an embedded internet access means built-in as an integral part of said appliance.

10. A monitoring and control system of claim 1, wherein said appliance has an embedded internet access means connected to it in the form of a retrofit embedded internet access device.

11. A monitoring and control system of claim 1, further comprising means:

- to send out alerts to said users;
- to communicate with any other internet enabled device using XML; and
- to encrypt and decrypt communication between said central server and said appliances.

12. A monitoring and control system of claim 1, wherein said appliance is capable of receiving a request from said central server while said appliance is offline, thereafter responding to said request by initiating a connection to said central server.

13. A monitoring and control system of claim 1, wherein said internet is an intranet.

14. An embedded internet access device for enabling any appliances to communicate over the internet using a system comprising.

- at least one central server located on the internet through which all data from said appliances and users of said system passes;
- wherein said system is capable of allowing any said user to simultaneously communicate with a plurality of said appliances in real-time; and
- capable of allowing a plurality of said users to simultaneously communicate with any particular said appliance in real-time; and
- capable of allowing any said appliance to communicate with a plurality of other said appliances simultaneously and in real-time.

15. An embedded internet access device of claim 14, wherein said device or its functionality thereof is a built-in integral part of said appliance.

16. An embedded internet access device of claim 14, wherein said device is connected to said appliance as a retrofit equipment.

17. An embedded internet access device of claim 14, further comprising communication means capable of communicating within the internet without the need of a static IP address.

18. An embedded internet access device of claim 14, further comprising communication means capable of making a dial-up connection to the internet when one or more changes of state is detected in the appliance connected to it.

19. An embedded internet access device of claim 14, further comprising communication means capable of disconnecting from the internet after a user-programmable period of inactivity

20 An embedded internet access device of claim 14, further comprising communication means capable of automatically connecting to said central server at regular user-programmable intervals.

21. An embedded internet device as in claim 14, wherein said device has a unique identification means.

22. An embedded internet device as in claim 14, wherein said device connects to said central server using said unique identification means and a password in combination.

23. An embedded internet device as in claim 14, wherein communication between said device and said central server is encrypted.

24. An embedded internet device as in claim 14, wherein said dial-up connection is established through a wireless means.

25. An embedded internet device as in claim 14, further comprising communication means to connect to a plurality of slave devices, wherein said slave devices are capable of communicating with said central server via said embedded internet device without the need of a separate internet connection